" Power factor correction device for switching power supplies."

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ABSTRACT

A power factor correction device for switching power supplies is described, which comprises a converter (20) and a control device (100; 200; 300) coupled with said converter (20) in such a way as to obtain from a input network alternated voltage (Vin) a direct regulated voltage (Vout) at the output terminal. The converter (20) comprises a power transistor (M) and the control device (100; 200; 300) comprises an error amplifier (3) having in input at the inverting terminal a first signal (Vr) proportional to said regulated voltage (Vout) and at the non-inverting terminal a voltage reference (Vref), at least one capacitor (C) having a first terminal and a second terminal which are coupled respectively with the inverting terminal and the output terminal (31) of the error amplifier (3) and a driving circuit (4-6) of said power transistor (M) which is coupled with the second terminal of said capacitor (C). The control device (100; 200; 300) comprises interruption means (SW) placed between the output terminal (31) of said error amplifier (3) and the second terminal of said capacitor (C) and control means (103; 103, 301-303) able to activate said interruption means (SW) so as to control the interruption of the connection between the error amplifier (3) and said driving circuit (4-6) for at least one time period (T) lower than the time period (Tciclo) in which said control device (100; 200; 300) is operative. (Figure 3)